

APPENDIX VI

UpdateClientList (* form a client record for each distinct client, useful if implementing hunt groups *)

Empty *ClientList*

For each link record LR in LinkArray such that LR.State = ON do

 If LR.ClientId not in ClientList then

 Create a newRecord CR and add it to ClientList

 CR.ClientId = LR.ClientId;

 Let CR be the Clientrecord with CR.ClientId = LR.ClientId

 Let L be the link corresponding to link record LR

 Add L to CR.LiveLinks if not already there

 (* if implementing hunt groups reassign logical port for huntgroup to *)

 (* correspond to CR.LiveLinks and store logical port in L.HuntGroupLink *)

 (* Otherwise L.HuntGroupLink = L itself *)

UpdateVlanInfo (* assign at most one link per client to each server Vlan *)

For each Vlan Record VR in VlanList

 Let V be VR.VlanId

 (* update client links of Vlan to be links that mention this Vlan *)

 VR.ClientLinks = {L: V is in LinkArray[L].Vlans and LinkArray[L].State = ON}

UpdateAddresses (* process 48-bit address info received from clients *)

 (* first update list of 48-bit Ids received from all clients *)

 ClientAddresses:= Set Union of LR.ClientAddresses and LR.PhaseIVAddress

 taken over all link records LR in ClientLinks with LR.State=ON

 (*if ClientAddresses changes, implementation MUST remove all entries for addresses*)

 (*no longer in ClientAddresses though this is not modeled in code*)

For every link record LR in ClientLinks with LR.State = ON

 Let HGL = LR.HuntGroupLink (* if no hunt groups, HGL is equal to L *)

 For every address X in LR.ClientAddresses do (* update non-Phase IV addresses *)

 For all links M do SetAddress(X, HGL, M)

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If LR.PhaseIVAddress ≠ 00-00-00-00-00          (* update Phase IV address entries*)
  For every Vlan V in LR.Vlans do
    Let VR be the VlanRecord for Vlan V
    For every link M in VR.VlanLinks do SetAddress(LR.PhaseIVAddress,HGL,M)
    (* next find lowest numbered ON link that reports PhaseIVaddress and update client link
databases *)
    Let L' = Min {M: LinkArray[M].PhaseIVaddress=LR.PhaseIVaddress and
LinkArray[M].State = ON}
    Let HGL' be the hunt group link corresponding to L'
    For every link M in ClientLinks do SetAddress(LR.PhaseIVAddress,HGL',M)

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